IN THE CLAIMS:

All pending claims are set forth below. Cancelled and withdrawn claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (previously amended), (cancelled), (withdrawn), (new), (previously added), (reinstated - formerly claim #), (previously reinstated), (re-presented - formerly dependent claim #), or (previously re-presented). Please AMEND claims, in accordance with the following:

Sub C1

1. (CURRENTLY AMENDED) A plasma apparatus, which represents the luminance of one frame in accordance with a combination of sub-frames having predetermined luminance levels, comprising:

a data converter to convert input video data into output data of each pixel into output data in which the ON/OFF states of the sub-frames are specified;

wherein a number of bits for a gray scale of the output data is greater than a number of bits for a gray scale of the input video data, and the sub-frames include a smaller luminance sub-frame having a luminance level which is lower than the minimum gray scale level of luminance which can be represented by the number of bits ~~in~~ of the input video data.

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2. (PREVIOUSLY AMENDED) A plasma display apparatus according to claim 1, wherein said data converter has a plurality of conversion characteristics, and a desired conversion characteristic is selected in accordance with a mode set signal to select said plurality of conversion characteristics.

3. (ORIGINAL) A plasma display apparatus according to claim 1, wherein said input video data are supplied in accordance with a plurality of primary colors, and said conversion characteristics of said data converter are selectively determined for each of said primary colors.

4. (CURRENTLY AMENDED) A plasma display apparatus according to claim 1, wherein~~,~~ said data converter has a conversion ~~characteristics~~ characteristic in which an increase rate of the luminance of said output data, in a first gray scale area for said input video data, differs from an increase rate of said luminance of said output data, in a second gray scale area, whose luminance is higher than said first gray scale area.

5. (CURRENTLY AMENDED) A data converter used with a plasma display apparatus which represents the luminance of one frame in accordance with a combination of sub-frames having predetermined luminance levels, wherein video input data ~~are~~ of each pixel is converted into output data in which the ON/OFF states of the plurality of sub-frames are specified, and wherein a number of bits for a gray scale of the output data is greater than a number of bits for a gray scale of the input video data, and the sub-frames include a smaller luminance sub-frame which has a luminance level lower than the minimum gray scale level of luminance which can be represented by the number of bits in the input video data.

6. (CURRENTLY AMENDED) A data converter according to claim 5, wherein a conversion characteristic of the data converter is that an increase rate of the luminance of the output data, in a first gray scale area for the video input data, is lower (or higher) than an increase rate of the luminance of the output data, in a second gray scale area, whose ~~is higher~~ luminance is higher than that in the first gray scale area.

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7. (CURRENTLY AMENDED) ~~Driving~~ A driving method for a plasma display apparatus which represents the luminance of one frame in accordance with a combination of sub-frames having predetermined luminance levels, comprising:

converting video input data of each pixel into output data in which the ON/OFF states of the plurality of sub-frames are specified;

wherein a number of bits for a gray scale of the output data is greater than a number of bits for a gray scale of the input video data, and the sub-frames include a smaller luminance sub-frame which has a luminance level lower than the minimum gray scale level of luminance which can be represented by the number of bits in the input video data.